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MUSIC FOR STRINGS, PERCUSSION AND CLARINET

A DOCUMENT APPROVED FOR THE
SCHOOL OF MUSIC

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ABSTRACT

The subject of my dissertation is a concerto for percussion, clarinet, and string orchestra. This concerto, like most concerti, is structured in three movements, with the inner movement being overall more tranquil than the outer two. But unlike most concerti, each movement is named after and pays homage to a composer of my choosing: Bartók, Debussy, and Gershwin. Although these three composers lived roughly at the same time (between 1862 and 1945), they couldn't have been more dissimilar. Besides being from different countries, which is subconsciously reflected in their music, their musical language is unmistakably unique. It would therefore be an interesting, yet intricate challenge to give unity to a piece of music whose three main blocks exhibit very different characteristics and very different styles. As a homage to Bartók's famous and ingenious 1936 piece *Music for Strings, Percussion and Celesta*, my concerto is titled *Music for Strings, Percussion and Clarinet*. Finally, the duration of the piece lasts about 19 minutes.

In the first section of my dissertation, I will detail the structure of each movement and explain how I used some aspects of the musical language of Bartók, Debussy, and Gershwin respectively to enhance the music and unify the whole concerto. The second section of my dissertation will be the complete score of *Music for Strings, Percussion and Clarinet.*

CHAPTER I

Introduction: A concerto

According to the *New Grove Dictionary of Music and Musicians*, a concerto is defined as "an instrumental work that maintains contrast between an orchestral ensemble and a smaller group or a solo instrument, or among various groups of an undivided orchestra. . . . Not until the eighteenth century was it applied consistently (though not exclusively) to works in three movements (fast-slow-fast) for soloist and orchestra, two or more soloists and orchestra (concerto grosso) or undivided orchestra."[1] The genre kept evolving, and in the twentieth century the term was applied rather loosely to works "cast in contrasted movements but have little in common with previous concertos in matter of content."[2]

Although the term "concerto" is applied rather freely in this particular context, *Music for Strings, Percussion and Clarinet* displays nonetheless some typical characteristics of a concerto. It is organized in three movements that are highly contrasting of each other. Additionally, the middle movement, "Claude," feels overall less bustling and more tranquil than the outer movements. Lastly, strings, percussion instruments, and clarinet are either highlighted as soloists or blend with the rest of the orchestra as if it were one instrument, echoing the notion mentioned above of an "undivided orchestra."

As explained in the abstract, each movement pays tribute to a composer of my choosing. Some characteristics of their music will be exhibited accordingly, yet

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[1] "Concerto," *The New Grove Dictionary of Music and Musicians*, ed. Stanley Sadie. (New York: Grove, 2001), 240-257.
[2] *Ibid*.

some elements of the first movement will recur in the following two to give unity to the piece as a whole. Each of these composers holds a respected place in the classical-music repertoire for different reasons. The lessons to gain from exploring their music and the reason why some of their respective qualities could be condensed into one piece will be detailed in the final chapter of this dissertation.

CHAPTER II

Movement 1: "Béla"

I strongly believe and profess that every true art is produced through the influence of impressions we gather within ourselves from the outer world, of "experiences."[3]

Béla Bartók.

It is with these words in mind that the composition of the first movement, "Béla," took place. The structure, rhythmic and melodic components of my music as well as its overall design, represent my personal impression or experience of what makes Bartók's intricate musical world unique and fascinating to me. On the one hand, this movement is humbly paying homage to the Hungarian composer by using some characteristics of his music as structural elements for mine; on the other hand, the usage of such characteristics remains subjective in its approach. This movement does not necessarily exemplify a model of Bartókian music.

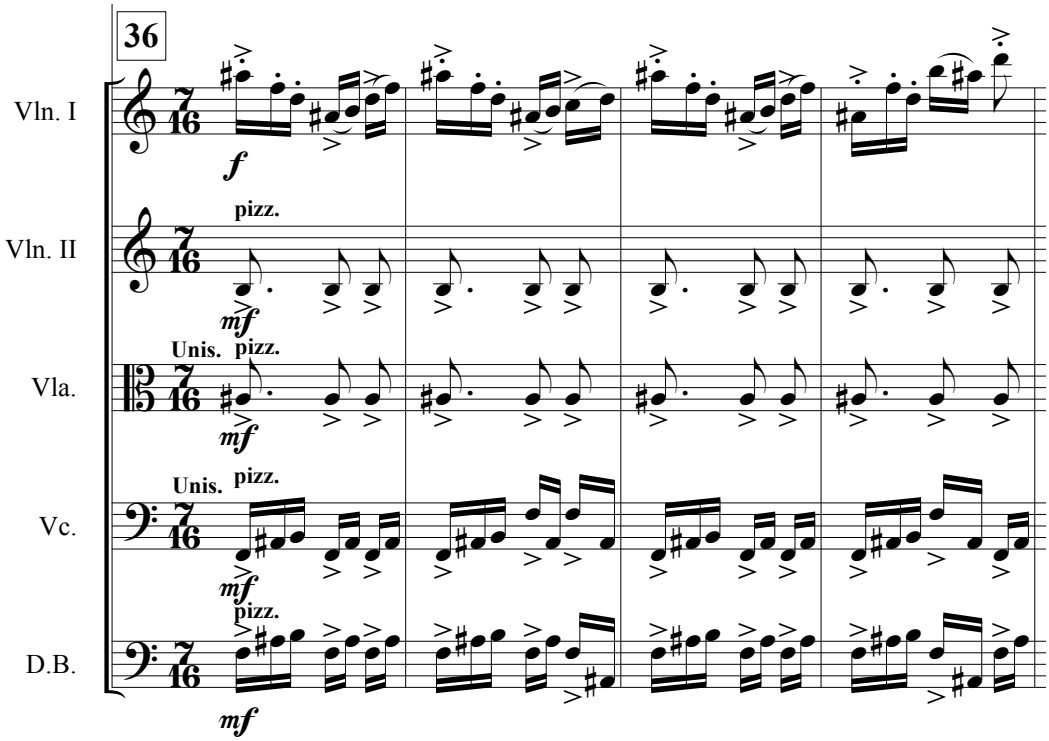
The characteristics of Bartók's music that are present here include symmetry of formal design (figure 1), asymmetric meters (figure 2), occasional meter changes, and percussive and dissonant sounds. (Table 1 summarizes all these characteristics.)

[3] László Somfai, *Béla Bartók: Composition, Concepts, and Autograph Sources* (Berkeley and Los Angeles: University of California Press, 1996), 11.

Figure 1: Symmetry of formal design. As Bartók believed, "Symmetry has been depicted as an influence upon structure on many levels, ranging from the smallest to the largest of contexts."[4]

Sections	**Introduction**	**I**	**II**	**III**	**II**	**I**	**Ending**
Measure Numbers	1-17	24-47	56-105	110-135	136-153	154-164	170-199
Transitions	18-23	48-55	106-109			165-169	

Figure 2: Asymmetric meter. Bartók was also an ethnomusicologist who collected countless of folk and peasant melodies from his native Hungary and used them in his music.[5] I chose to focus more on the asymmetric rhythmic components of these melodies rather than their pitch content.



[4] Jonathan W. Bernard, "Space and Symmetry in Bartók," *Journal of Music Theory* 30, No. 2 (Autumn 1986): 185.

[5] *The Cambridge Companion to Bartók*, ed. Amanda Bayley, part 1, "Bartók and Folk Music" by Stephen Erdely (Cambridge University Press, 2001), 27-35.

In his analysis of *Music for Strings, Percussion and Celesta* found in his book *Symmetry as a Compositional Determinant,*[6] Larry J. Solomon mentions, although not with total reliance, Ernö Lendvai's claim to have found Fibonacci numbers and Golden Sections in Bartók's works, including *Music for Strings, Percussion and Celesta*. The Fibonacci sequence is a series of numbers in which each digit equals the sum of the preceding two: 1, 1, 2, 3, 5, 8, 13, 21, 34, etc. The usage of the Fibonacci numbers alone may not hold the key to understand or unveil all the mysteries of Bartók's music, but it offers a point of departure nonetheless. Music theorists since the Greeks have used numbers and mathematical ratios to analyze music, and even to this day, it is difficult to analyze a piece of music without using numbers, whether arabic or roman. I therefore contemplated the mathematical aspect of music before the emotional. I used the Fibonacci sequence as the foundation of all sonorities in three different ways throughout this movement, which I have labeled A, B, and C (respectively figures 3, 4, and 5).

[6] Larry J. Solomon, "Symmetry as a Compositional Determinant: VII Bartók & Webern" (1973): http://solomonsmusic.net/diss7.htm (accessed May 6, 2013).

Figure 3: Fibonacci Sequence A. Number of notes
Ex. 1: Harp mm. 1-16

Ex. 2: Tubular Bells mm. 172-182

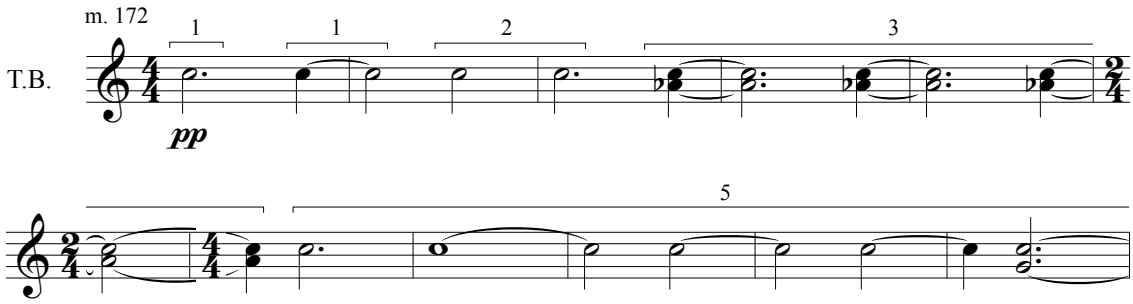
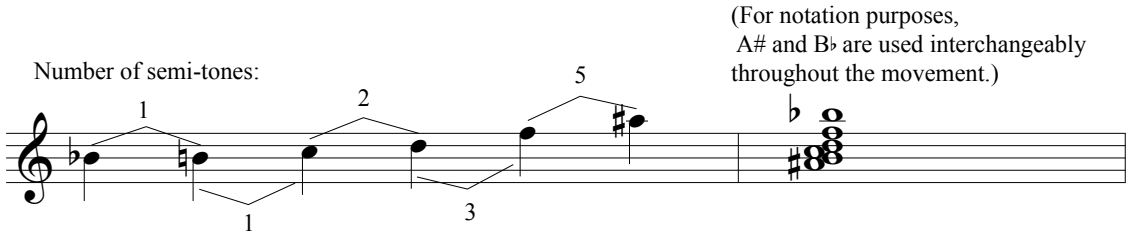


Figure 4: Fibonacci Sequence B. "Fibonacci chord." In his essay *The Problem of the New Music*, Bartók explains also that harmony does not govern his music per se but results instead from a heavy emphasis on linear writing.[7] Therefore, I have used the Fibonacci sequence in a linear fashion, counting the number of half steps between tones to create a chord. For purposes of this discussion, this chord is referred to as the "Fibonacci chord," which represents the source of all sonorities in this movement.

Ex. 1:



Later on, the inversion of this chord is presented starting m. 111 in the second violins against the first violins' material, in order to reinforce the use of symmetry as structural element.

Ex. 2:

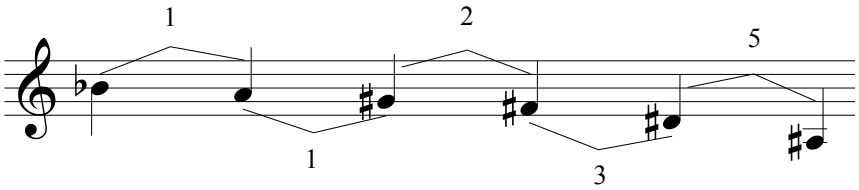
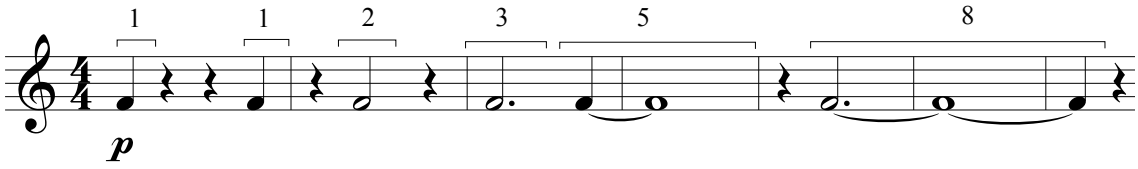


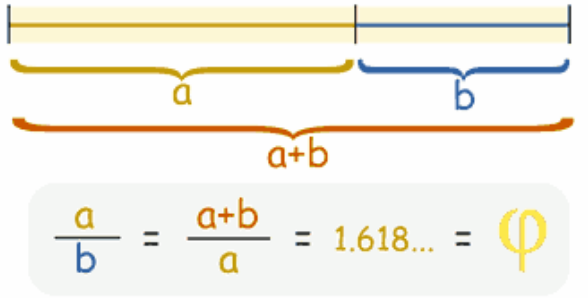
Figure 5: Fibonacci Sequence C. Rhythmic value (number of beats) Harp, mm. 170-76



[7]Béla Bartók, *The Problem of the New Music,* in *Classic Essays on Twentieth-Century Music: A Continuing Symposium*, ed. Richard Kostelanetz and Joseph Darby (New York: Schirmer Books; London: Prentice Hall International, 1996).

Finally, the Golden Ratio, which Solomon mentions as well, is also known as "divine proportion" or "golden mean." It is a special number that equals approximately 1.618. It is usually found in geometry, architecture, and art, and it is believed that the most beautiful shapes, buildings, and artwork, contain this divine proportion. For instance, if one divides a line in two parts, the golden ratio is present if the longer part divided by the smallest part is also equal to the whole length divided by the longer part (figure 6).

Figure 6: Golden Ratio[8]

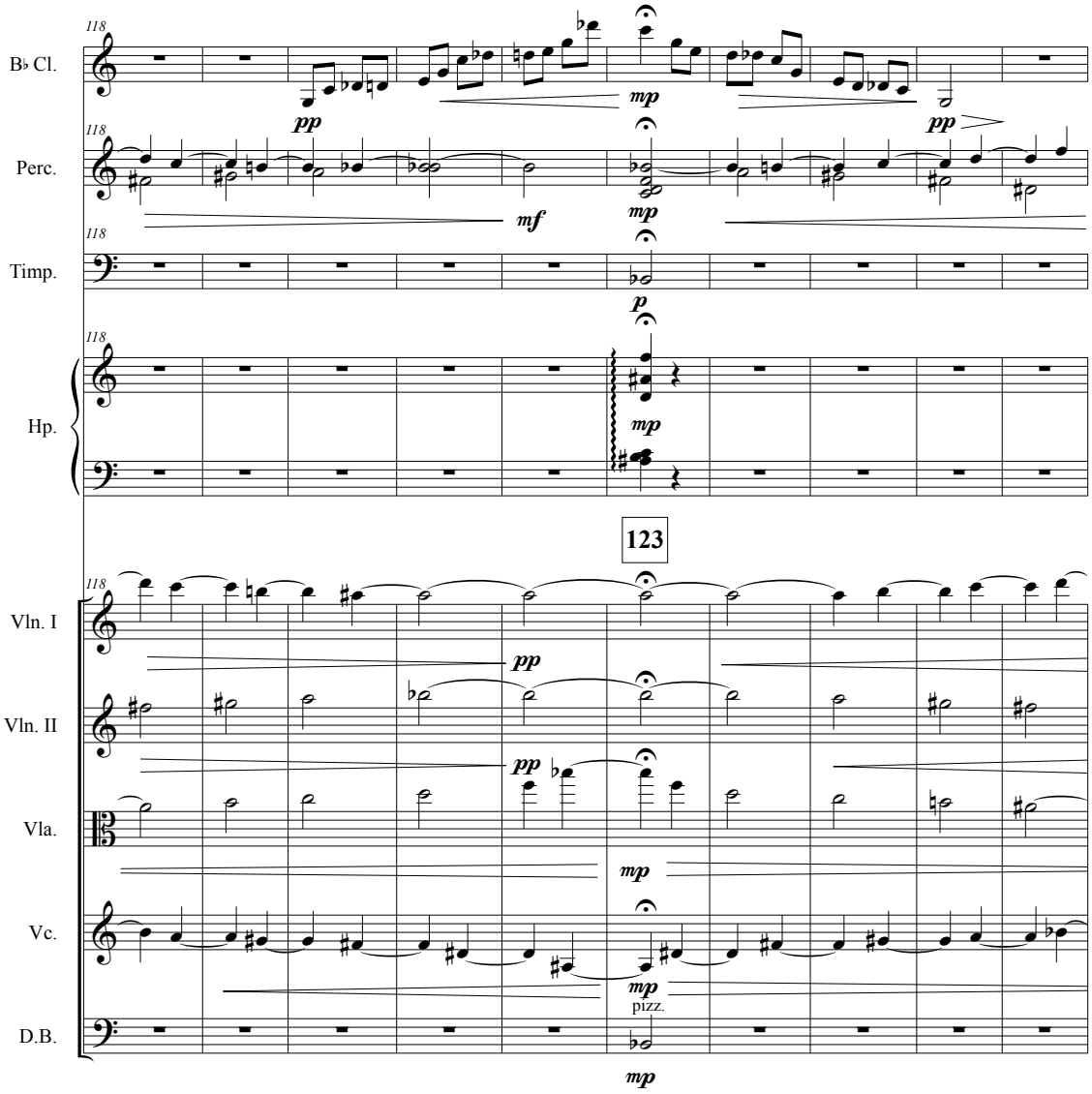


In "Béla," the so-called "Fibonacci chord" is present throughout the movement, but transpires more specifically in section III. It is presented linearly in the first violins starting m. 110, doubled by the crotales. It is mirrored in the second violins starting m. 111, also doubled by the crotales. Starting at mm. 116 and 117, the violas and celli enter with the same material as the first and second violins respectively. As the violins' melodic lines fade out, the violas and celli's lines fade in. Finally, as the clarinet is reaching and pausing briefly on a high B-Flat, the

[8] Rod Pierce, "Golden Ratio" *Math Is Fun*, (July 2013): http://www.mathsisfun.com/numbers/golden-ratio.html (accessed September 13, 2013).

"Fibonacci chord" is heard in all instruments m. 123 (figure 7). The resulting thickness of texture enhanced by this specific chord represents the pinnacle of the whole movement. This movement is 199 measures long. After m. 123, there are then 76 measures remaining till the end of the piece. Fortuitously, if one were to divide 123 by 76, one would obtain the number 1.618, the "Golden Ratio."

Figure 7: Golden Ratio m. 123



Another component of Bartók's musical technique was his knowledge of Schoenberg's twelve-tone system. Like his Viennese counterpart, he regarded atonality as the continuation (or evolution) of tonal music. However, he was neither bound to Dodecaphonism like Schoenberg nor did he reject tonality altogether. Instead, he used all elements of music, modern as well as past, to serve his purpose. As stipulated in his own 1920 essay "The Problem of the New Music," Bartók used tonal chords to enhance atonality and "maintain in their new circumstances a fresh and quite powerful effect, which arises from their capacity to provide contrast"[9] as long as they do not create an overall sense of tonality. Yet he carefully avoided traditional chord progressions (and that of the dominant-tonic in particular) that he regarded as a scar on the face of modern music. Consequently, the music of this movement is neither dodecaphonic nor tonal per se. In the inner sections (I-III), the pitches used are not diatonic to any key but were chosen instead according to specific mathematical ratios. The introduction and ending, however, have an F-Dorian flavor. The music is not atonal, so it is easier to grasp and remember on a first listening; yet it is not tied to the major-minor system either. The vibraphone line above the harp, albeit ornamental, also contains the pitches of F Dorian, but its melody makes more sense if read in E-Flat major and later in C Minor than it does in F Dorian. It is as if two separate musical ideas were being forced to play simultaneously. And by the time the F-Dorian mode is established as the ground tonality, section I puts an end to this introduction material at m. 19 and the music

[9] Béla Bartók, *The Problem of the New Music,* in *Classic Essays on Twentieth-Century Music: A Continuing Symposium*, ed. Richard Kostelanetz and Joseph Darby (New York: Schirmer Books; London: Prentice Hall International, 1996), 48.

changes drastically. As the musicology Jeremy Yudkin once wrote about Bartók, "He mingled the modality that is present in much indigenous music with both chromaticism and tonality."[10] Finally, the introduction material (mm. 1-18) is central to the whole concerto. Underneath its melodic and rhythmic contour, like a simple yet uncomfortable pulse, there is a great amount of malleability that gives room to many variations. Therefore, it will recur modified in the following two movements as a means of giving unity to the piece as a whole. (The return of this material will be detailed in chapters III and IV.)

In conclusion, it was not my intention to copy Bartók's music per se; instead, I used some of his concepts to think of and create music differently from that which I had written in the past. The formal structure of the first movement is symmetrically organized into three principal sections with an introduction and ending that bookmark the whole movement. Each section exhibits different traits of my own interpretation or impression of Bartók's music but utilizes the same pitch collection throughout, built with intervals that follow the Fibonacci sequence which are presented in different ways or "variations" (table 1).

[10] Jeremy Yudkin, *Understand Music*, 7th ed. (Pearson Education, Inc., 2012), 235.

Table 1: Architecture of Movement 1, "Béla"

Introduction (mm. 1-17)	Introduction of the main material of the whole concerto	The Fibonacci sequence **A** (notes) appears in the harp (doubled by the celli) The slow tempo, the interrupted pulse, and the combined timbres of the harp and vibraphone give the sense of a vague, indefinite, and enigmatic atmosphere
I (mm. 24-47)	Dramatic; Hungarian-like rhythm	"Fibonacci chord" **B** is presented in the low strings and celesta. The "Hungarian melody" starting m. 36 is using these pitches in a different way – *variation 1*
II (mm. 56-105)	Percussive, dissonant	"Fibonacci chord" **B** The melodic lines are shared mainly between clarinet and xylophone – *variation 2*
III (mm. 110-35)	Mirror symmetry and Golden Ratio	"Fibonacci chord" **B** – *variation 3*
II (mm. 136-53)		
I (mm. 154-64)		
Ending (mm. 170-99)	Recalls the introduction's enigmatic character	Superimposition of Fibonacci Sequence **A** (notes) in the harp and **C** (rhythm) in the bells, starting m. 172. The "Fibonacci chord" (without B natural) concludes the movement

CHAPTER III

Movement 2: "Claude"

> Let us maintain that the beauty of a work of art must always remain mysterious; that is to say, that it is impossible to explain exactly how it is created. Let us at all costs preserve this magic peculiar to music, for of all the arts it is the most susceptible to magic.[11]
>
> Claude Debussy, musicien français.

Debussy has often been described as a difficult student, one few teachers would like to have in class in spite of his talent. He appeared rebellious and stubborn, and frequently opposed to following the rules. His preconceived ideas on music did not please the Paris Conservatoire where he studied in his youth, and he often and openly opposed tradition. "If ever a man of genius tried to shake off the heavy yoke of tradition, he is overwhelmed with ridicule. So the unfortunate man of genius decides to die young, and this is the only manifestation of his genius which is warmly encouraged."[12] Also, Debussy specifically resisted German music influence, and that of Wagner's essentially in order to create music that pleased him first rather than following in the footsteps of other composers or to please an institution. "I am all for liberty. Music by its very nature is free. Every sound you hear around you can be reproduced. Everything that a keen ear perceives in the rhythm of the surrounding world can be represented musically. To some people, rules are of primary importance. But my desire is to reproduce only what I hear."[13] Such philosophy towards music is not exactly original. After all, most composers (if not all

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[11] Léon Vallas, *The Theories of Claude Debussy, Musicien Français*, trans. Maire O'Brien (New York: Dover Publications, Inc., 1967), 3.
[12] *Ibid*.
[13] *Ibid*.

of them) hunger for singularity. Yet Debussy's very own motto, "pleasure is the law,"[14] is what drove me to write the second movement of *Music for Strings, Percussion and Clarinet*. The music of this movement contrasts that of the other two with its overall tranquility and lyrical character. There are also many characteristics of Debussy's music that I observed through the years. To honor his French side on the one hand and wink at his odd and fussy "table manners" on the other, I have summarized these characteristics in a little recipe. This quite modest recipe would help any sensible musician create a "Mouvement à la Sauce Debussy," yet not all ingredients have to be used in the same piece.

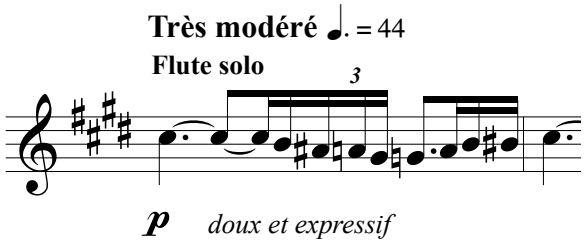
Pre-heat your instruments and stretch their ranges. A bit.
Then, give each instrument the main theme previously marinated in the whole-tone scale. (If baking for a large orchestra, make sure to give the English horn – which is neither English nor a horn – a chance to shine.)
Add a zest of pentatonicism here and there.
Whisk a few unresolved seventh chords in parallel motion in tutti sections and make sure to avoid any obvious tonic-dominant resolutions at cadence points.
Carefully blend the timbre of one instrument with that of another, in a very delicate manner. Every combination is welcome as long as it is done with grace and delicacy.
Pour your mix in a meter-changing cooking pan and bake at moderate tempo for as many measures you judge necessary.
Finally, glaze your score with poetic indications in the French language. Music words in Italian are occasionally accepted. (However, under no circumstances should you write in German in a "Mouvement à la Sauce Debussy." German is strictly prohibited.)
Chill and rehearse well before serving. Serve as many people as you would like.
Bon appétit!

Among these characteristics, the ones that resonate the most with the music of "Claude" are the usage of the whole-tone scale, streams of unresolved seventh chords, the avoidance of any tonic-dominant relationships at cadence points, and an emphasis on timbres and timbral combinations. The opening of this movement is

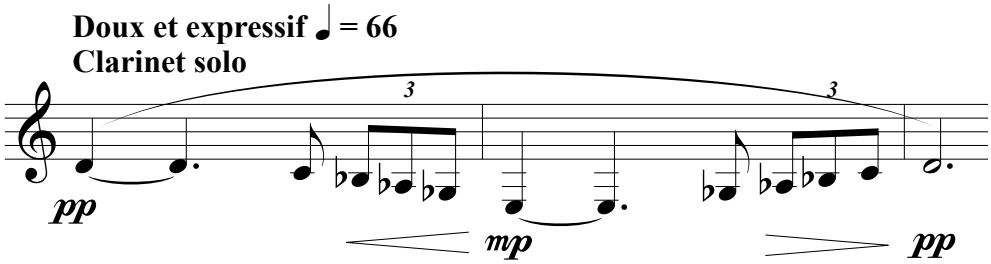
[14] Piero Weiss and Richard Taruskin, eds. *Music in the Western World: a History in Documents* (New York: Schirmer, 1985), 418.

also purposefully reminiscent of the opening flute line in Debussy's famous *Prelude to the Afternoon of a Faun* (figure 8), which helped set the tone of a tranquil yet expressive atmosphere.

Figure 8:
Ex. 1: Debussy's opening to *Prelude to the Afternoon of a Faun*



Ex 2: Opening to "Claude"



Additionally, this movement is carefully structured but its architecture (table 2) exists according to sensuous sonorities as opposed to mathematical ratios as found in "Béla." Although both movements exhibit an arch form, in "Claude" the recurrence of previously heard material does not coincide with numbers or symmetry per se. Instead, the music flows freely to reach its full melodic potential without any specific sense of direction. "Music by its very nature is free."[15]

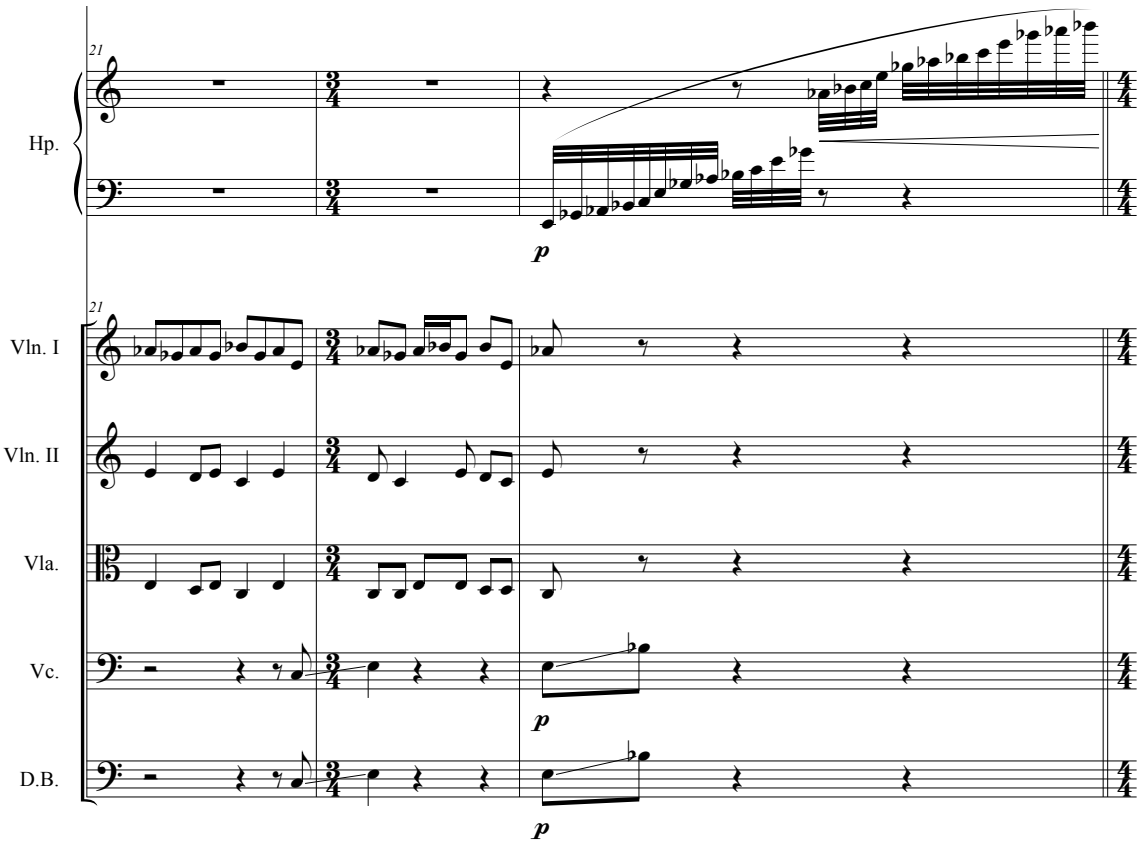
[15] Léon Vallas, *The Theories of Claude Debussy, Musicien Français*, trans. Maire O'Brien (New York: Dover Publications, Inc., 1967), 10.

Table 2: Architecture of Movement 2, "Claude"

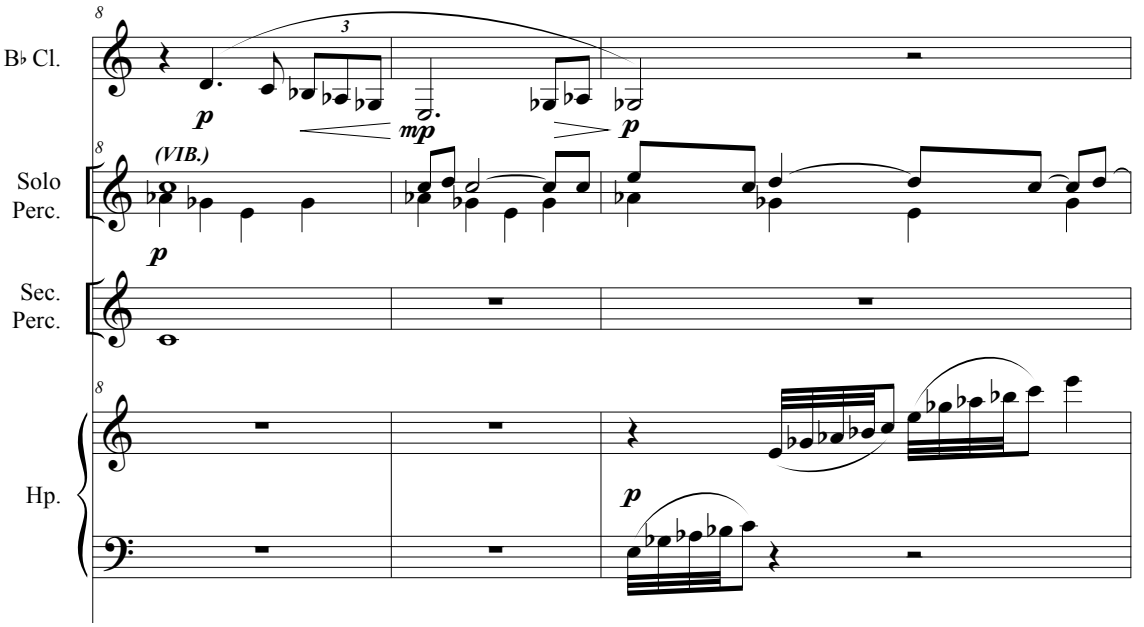
A	mm. 1-12	Whole-tone scale	Opening material in clarinet; superimposition of "opening pulse" of "Béla" starting m. 8 in the vibraphone with the whole-tone scale in the harp, starting m. 10
B	mm. 13-28	Minor chords with added 2nds or 7ths	New and contrasting material in the strings
C	mm. 29-44	Minor chords with added 2nds or 7ths	There is another sense of "pulse" in the harp, but this time its harmonic content is based on seventh chords
Trans.	mm. 45-47	Whole-tone scale	Whole-tone material recurs in percussion instruments to bring back the B section at m. 48
B'	mm. 48-54		The material from the B section reappears but its pitch content changes in the clarinet from m. 52 onward, leading to the return of A at m. 55
A'	mm. 55-63		
Codetta	mm. 64-72		This codetta starts with the material from the central C section and gradually brings the A material back to a close, staring m. 68

As mentioned in table 2, numerous unresolved seventh chords are used frequently throughout the movement, as well as the whole-tone scale. Yet, and in spite of the obvious differences in tone and character of "Béla" and "Claude," a few elements of "Béla" recur, albeit changed, in "Claude" in order to give unity to the whole concerto. For instance, the whole-tone scale that is so present in the second movement was previously heard, although briefly, in the first movement (figure 9).

Figure 9:
Ex. 1: Whole-tone scale in "Béla." Harp m. 23

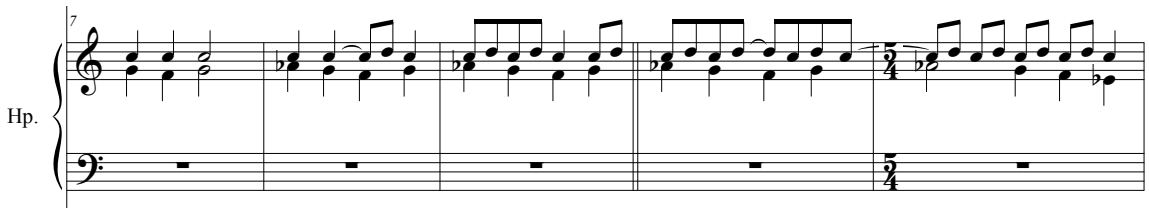


Ex. 2: Whole-tone scale in "Claude." Harp m.10

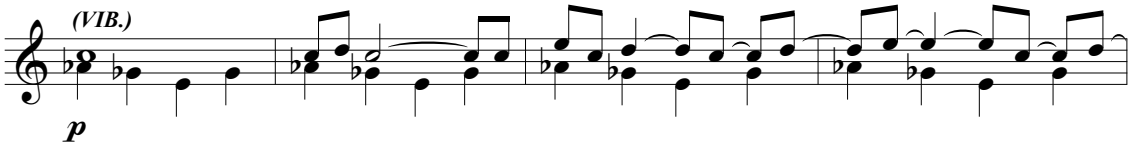


Additionally, the opening "pulse" in "Béla" recurs in "Claude" as well slightly altered to be more characteristic of Debussy's musical language (figure 10).

Figure 10:
Ex. 1: Opening "pulse" of "Béla," Harp mm. 7- 11 (F Dorian)

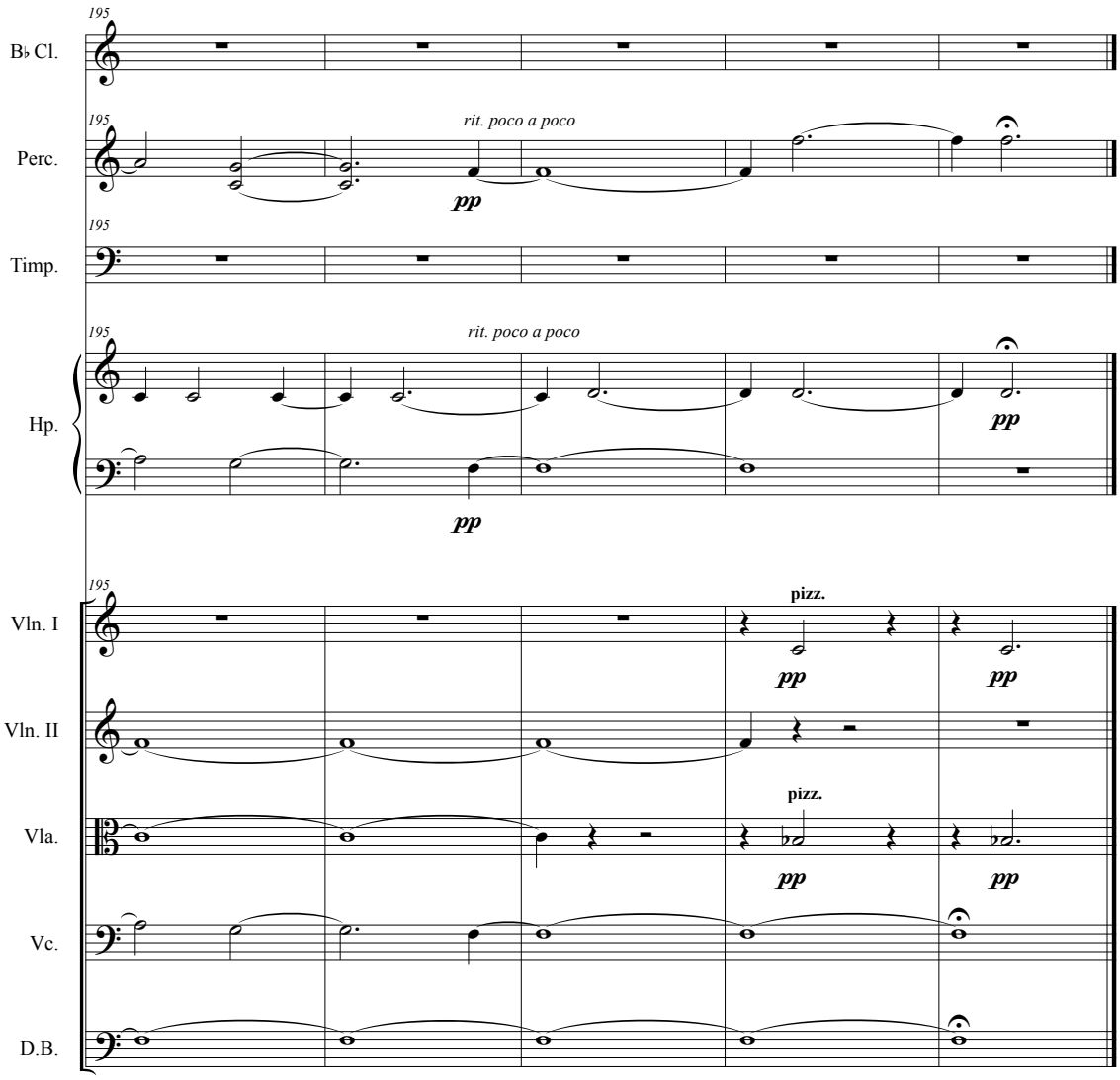


Ex. 2: Use of this material occurs in "Claude," starting m. 8, in the vibraphone. (The tonality has changed from a F-Dorian flavor to the whole-tone scale with the G-Flat.)

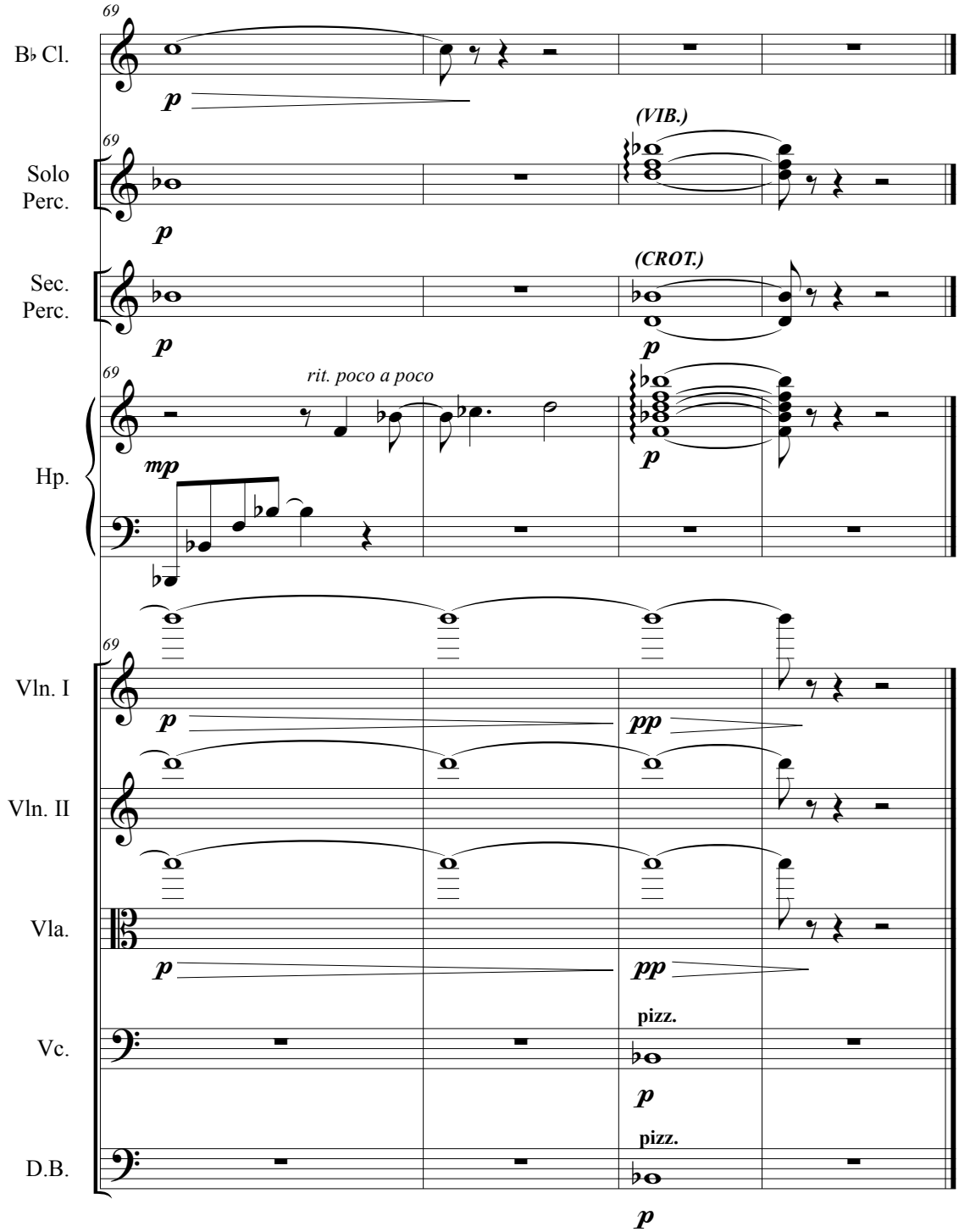


Finally, the final chord in "Béla" is the same as that of "Claude" (B-Flat Major), minus the added second, or pitch C. It is also orchestrated differently (figure 11).

Figure 11:
Ex. 1: Final chord in "Béla." The texture is rather thin; the final notes simply resonate *pianissimo* in the harp, crotales, first violins, and viola pizzicato. Unlike the fifth scale degree F, the tonic B-Flat is not doubled in this final chord. Moreover, since F (5^{th}) is in the bass, the sense of resolution is greatly weakened. The music is left suspended, almost apathetic.



Ex. 2: Final chord in "Claude." The texture is much thicker in "Claude" than it is in "Béla". The tonic B-Flat is firmly grounded in the bass and doubled by all instruments but the second violins.



In conclusion, as Debussy believed, "Music should humbly seek to please; within these limits great beauty may perhaps be found. Extreme complication is contrary to art. Beauty must appeal to the senses, must provide us with immediate enjoyment, must impress us or insinuate itself onto us without any effort on our part."[16] Indeed, this second movement does not exhibit the complexity of structure and pitch content of the first movement. Instead, it aims at immediate sonorous pleasure by emphasizing harmony and orchestration essentially. As Richard Crocker explains in *A History of Musical Style*, "Debussy is sometimes described as a harmonic innovator; most of his harmonies, however, are traditional forms or merely slight modifications of those forms. . . . Debussy minimized the function of chords, concentrating instead on their sonorous quality."[17] The harmonic language of this movement is enhanced by its orchestration. As Adam Carse reminds us in his book *The History of Orchestration*, the French composer focused on quality and spirituality: "In Debussy's hands, the orchestra became a super-sensitive instrument."[18] For example, the harp is mostly employed as a timekeeper in a similar way as in the *Prelude to the Afternoon of a Faun*. The strings' texture does not feel "weighty" due mostly to the overall open spacing of the chords and the fact that their dynamic level does not exceed *mezzo-forte*. Also, in the A and A' sections especially, the writing is mostly contrapuntal. Reinforcing the linearity of the lines as opposed to their harmonic implication helps lighten the texture as well. Finally,

[16] Léon Vallas, *The Theories of Claude Debussy, Musicien Français*, trans. Maire O'Brien (New York: Dover Publications, Inc., 1967), 13.
[17] Richard L. Crocker, *A History of Musical Style* (New York: Dover Publications, Inc., 1966), 477.
[18] Adam Carse, *The History of Orchestration* (New York: Dover Publications, Inc., 1964), 325.

the percussion instruments in particular lose their “percussive” sonority in favor of delicacy and color. They either double another instrument to add more nuances to a line, or have their own melodic lines. Such emphasis on timbral combinations is particularly reminiscent of Debussy’s unique and colorful orchestral techniques.

CHAPTER IV

Movement 3: "George"

The composer who most successfully brought together elements of jazz and classical music was George Gershwin.[19]

Jeremy Yudkin.

George Gershwin's place in music history is rather unusual. Was he simply a gifted and popular songwriter, or was he a composer of great concert music? He composed music of great lyricism on the one hand, and songs with catchy and memorable rhythm on the other. As Steven Gilbert writes in *The Music of Gershwin*, "Gershwin's fascination with rhythm would be self-evident even without lyrics and titles. His early music showed his early absorption of patterns idiomatic to ragtime and to the popular songs of the teens and twenties."[20] Since syncopation at a moderate-to-fast tempo is one of the main characteristics of ragtime, it gives the music an overall lively character that was very appealing for writing the third and last movement of my concerto. Yet, in addition to using syncopated material, I also inserted a slower-paced and lyrical section to this movement that is reminiscent of what Gershwin has done in his major orchestral works such as *Rhapsody in Blue* or *An American in Paris*. Moreover, many grace notes as well as clarinet, xylophone, and timpani glissandi punctuate the music with humor and add to its lightness of character.

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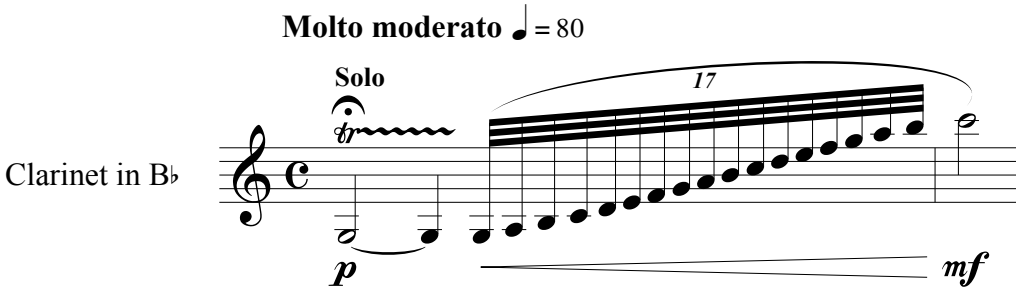
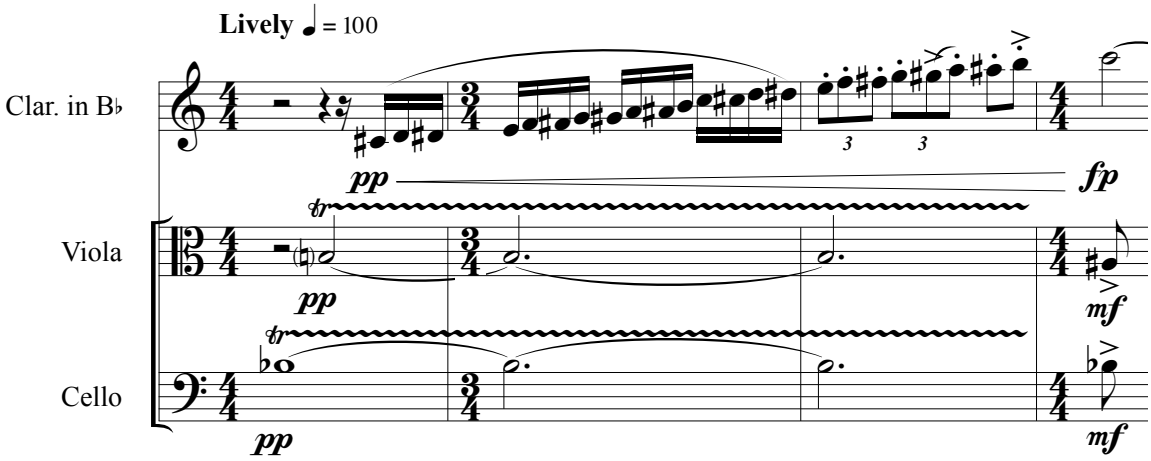
[19] Jeremy Yudkin, *Understand Music*, 7th ed. (Pearson Education, Inc., 2012), 274.
[20] Steven E. Gilbert, *The Music of Gershwin* (New Haven and London: Yale University Press, 1995), 25.

Like in the opening of "Claude" where the reference to Debussy's music is obvious, this movement also starts with an evocation of one of Gershwin's pieces. All in all, three of Gershwin's most famous concert pieces are either evoked or quoted to enhance the overall mood of the movement. First, the opening gesture of "George" recalls that of the famous clarinet glissando in *Rhapsody in Blue* (1924). This gesture seemed almost inevitable since the clarinet is such an important component of this concerto (figure 12).

Figure 12:
Ex. 1: Opening of Gershwin's *Rhapsody in Blue*



Ex. 2: Opening of "George"



The first quote from Gershwin's music that appears in this movement is the most prominent as it occurs throughout. It is the beginning of his 1928 orchestra

piece *An American in Paris.* This brief material happens in the first and last sections of the movement in its original cheerful character; but, taken at a slower tempo and with a thicker and denser accompaniment, it becomes the main lyrical material of the middle section B (figure 13, examples 1, 2, and 3).

Figure 13:
Ex 1: Opening of Gershwin's *An American in Paris*

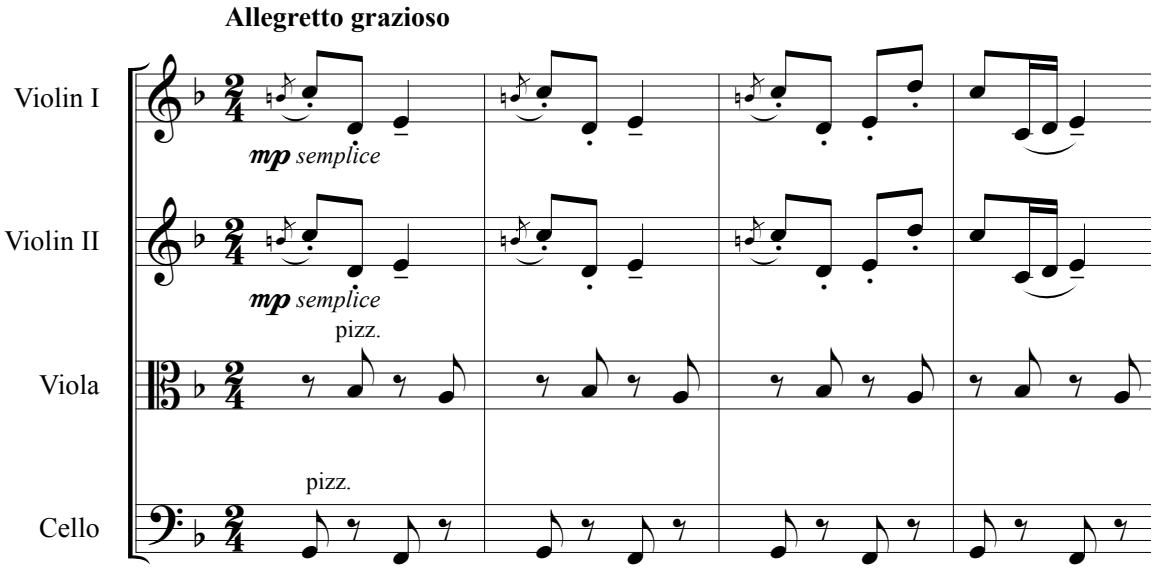
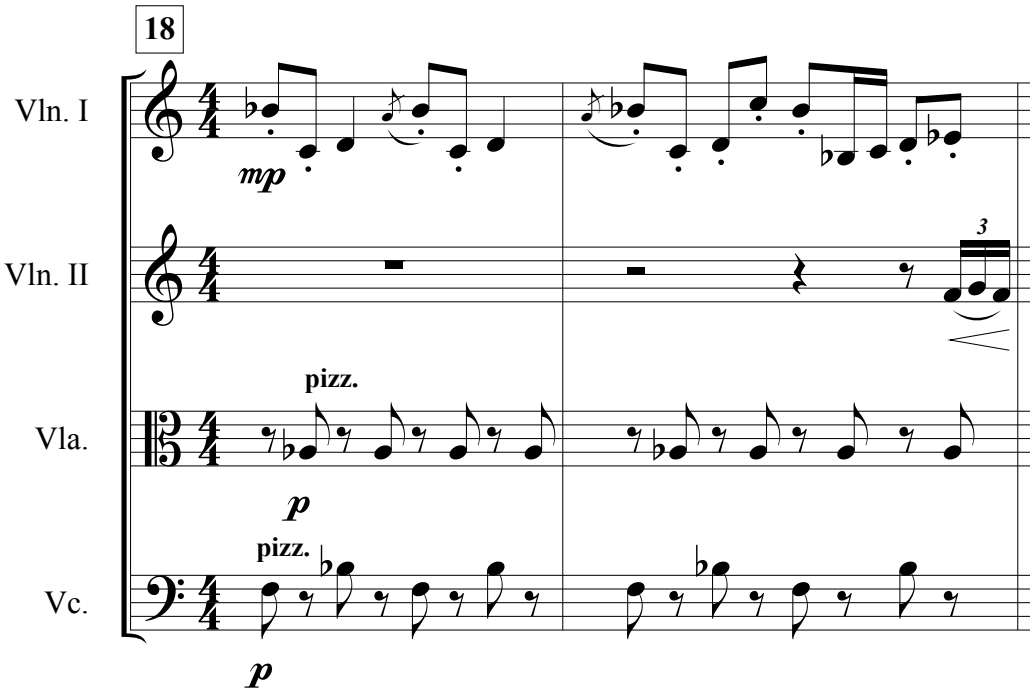
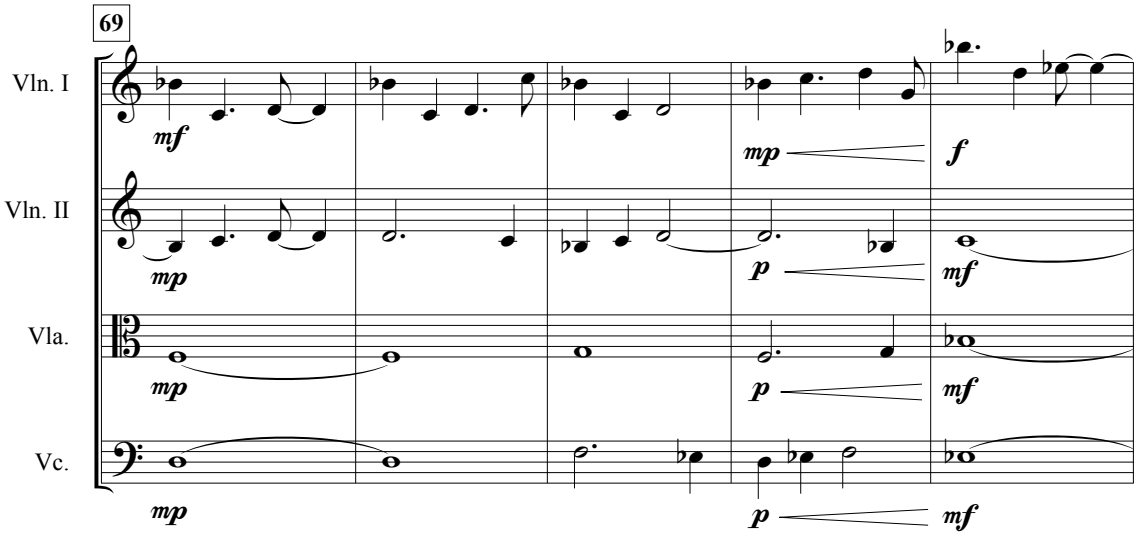


Figure 13:
Ex. 2: Quote of *An American in Paris.* The fast tempo, the major tonality, the articulation, and the grace notes give this material an animated character.

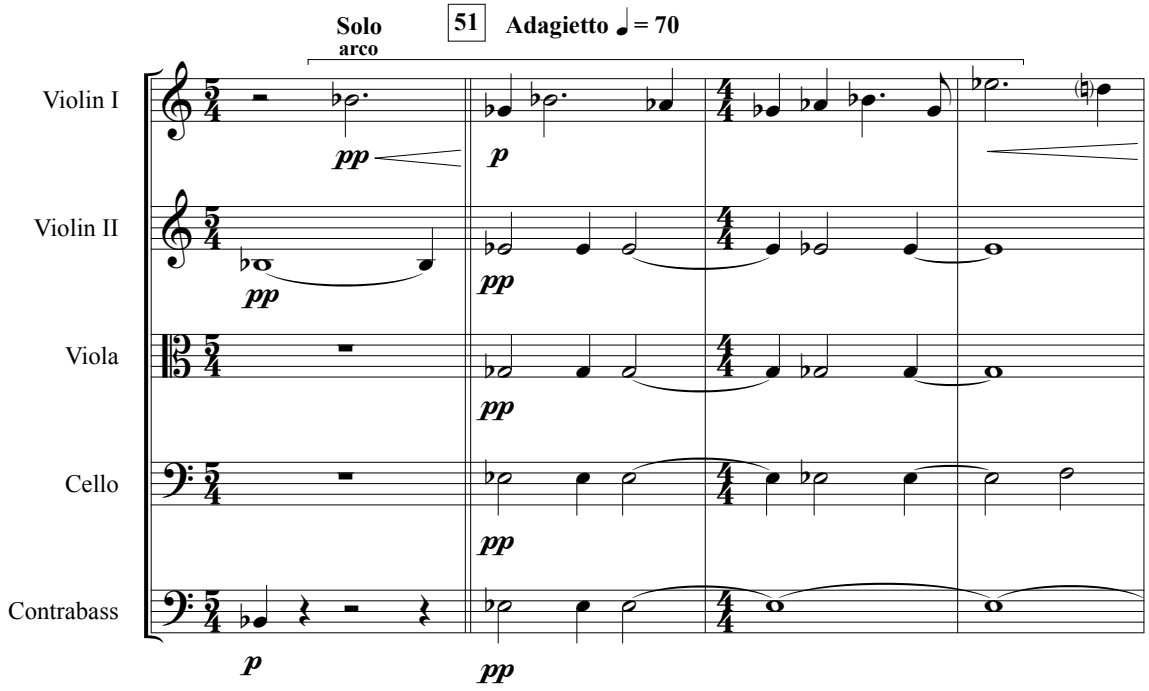


Ex. 3: Quote of *An American in Paris* in the slow middle section B



Lastly, the second quote that is stated in this movement is the first phrase of the song "Summertime" from the 1935 opera *Porgy and Bess* (figure 14). It transpires in the first violins as a transition from the first section A to the middle section B and sets the tone for the lyrical and slow music that follows.

Figure 14: Quote of "Summertime"



The overall formal structure of this movement is organized in three main sections, A, B, and A', or fast, slow, and fast. While the slow section B is lyrical with an overall homophonic texture, the outer sections are, by contrast, jaunty, rhythmically driven, and written contrapuntally (table 3).

Table 3: Architecture of Movement 3, "George"

Sections	**Introduction**	**A**	**B**	**A'**	**Coda**
Measure Numbers	1-7	8-46	51-78	82-98	99-end
Transitions		48-50	79-81		

Additionally, sections A and A' are built with four different motifs labeled **a**, **b**, **c**, and **d** (figures 15-18). These motifs are first heard alone but are later combined in contrapuntal layers starting m. 25.

Figure 15: Motif a. Clarinet m. 14

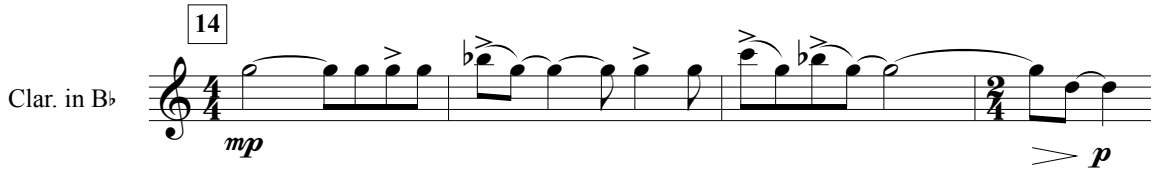


Figure 16: Motif b. First Violins m. 18

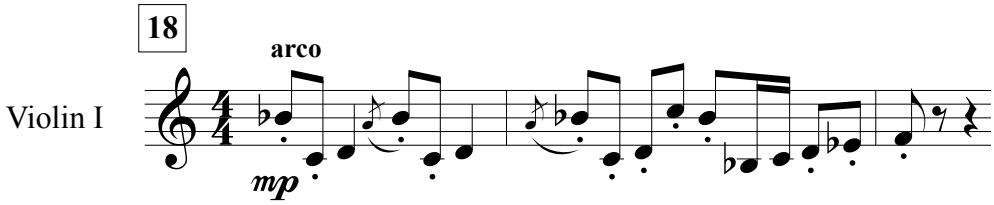


Figure 17: Motif c. Xylophone m. 21

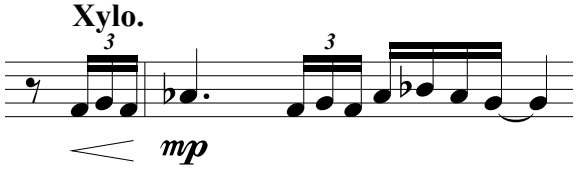
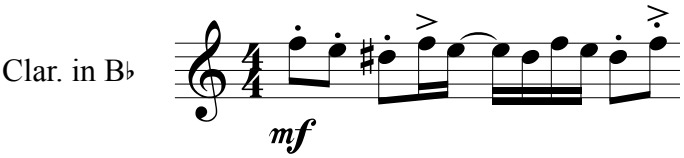


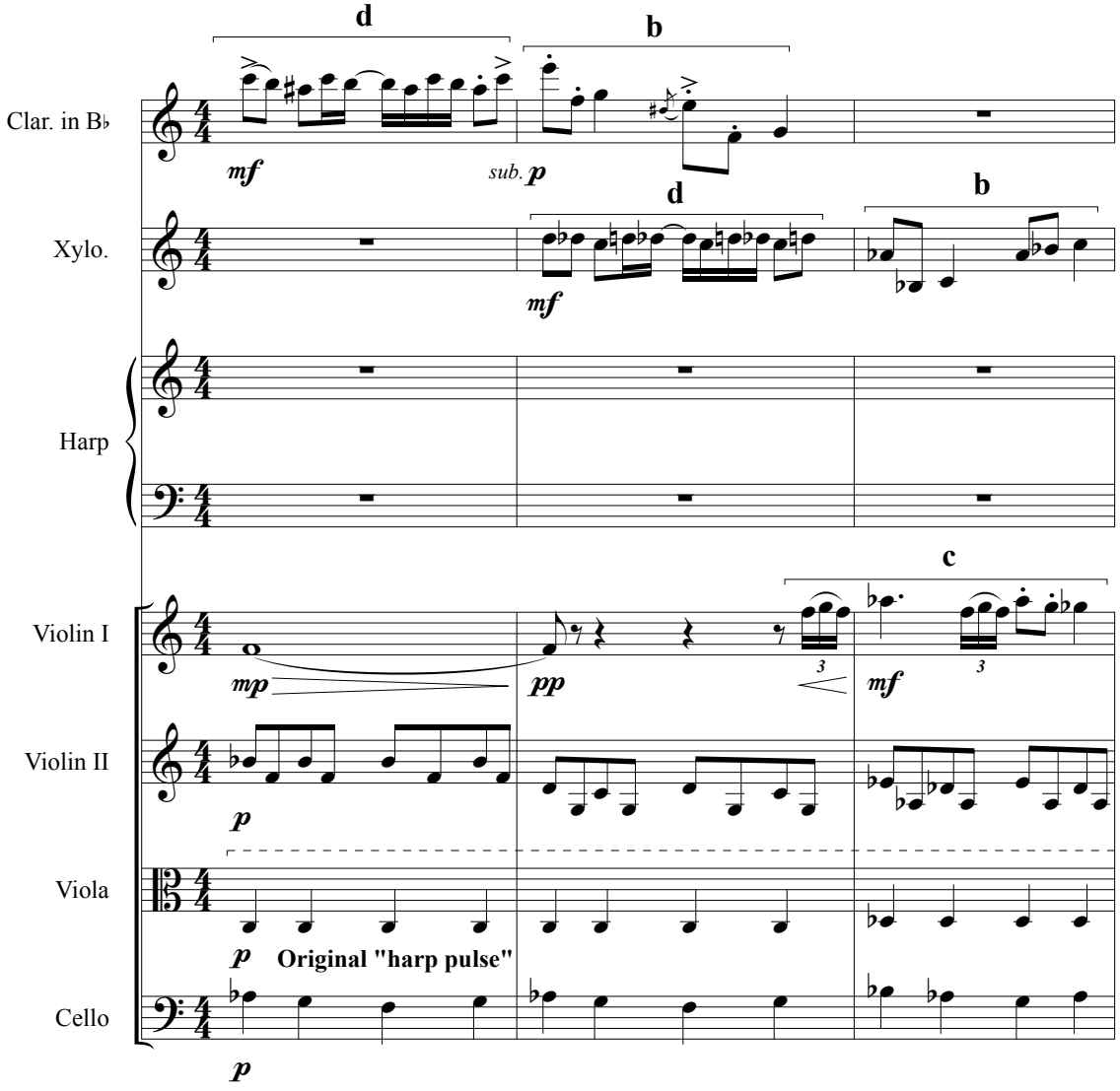
Figure 18: Motif d. Clarinet m. 36



In addition to these four motifs, the original "pulse" so characteristic of the first movement, "Béla," is heard against those motifs (figure 19). In "Claude," the rhythm and contour of the pulse is similar as that of Béla's but its pitch content

differs slightly. In “George,” the pitch content remains the same as Béla’s but the tempo unfolds at a faster pace and the pulse has now become secondary material to support the four motifs mentioned above.

Figure 19: Treatment of “Béla’s pulse” in violas and celli starting m. 33. This pulse recurs before the coda mm. 95-98 in celli, violas, and second violins.



In addition to the "harp pulse," other elements of "Béla" appear in "George." The "Fibonacci chord" for instance is heard m. 8 in the strings minus the C-Natural (figure 20), and the last chord of the concerto is also the same as in "Béla," a B-Flat major chord with an added second, or C (figures 21 and 22).

Figure 20: Treatment of the "Fibonacci chord" in the strings m. 8. The conflict between the A-Sharp and the B is the foundation of this chord since the intervallic relationship between those two pitches is 1 (half step). (This chord recurs in mm. 107-08 as well.)

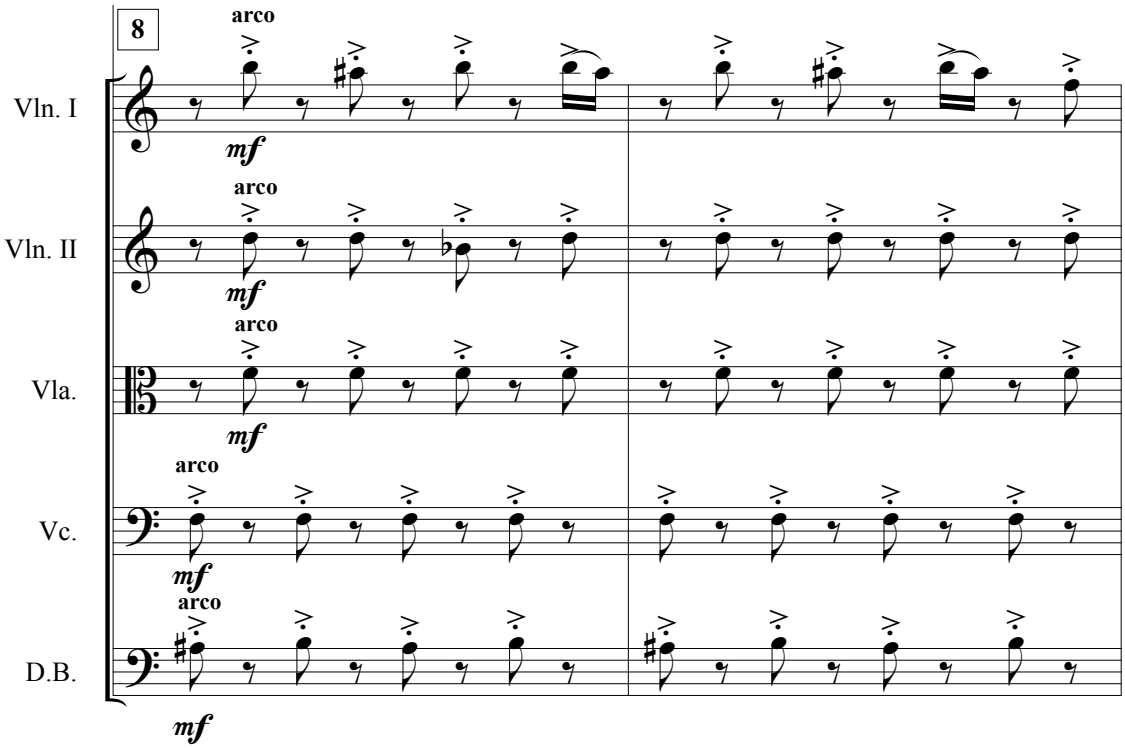


Figure 21: Final chord in "Béla." B-Flat Major with added second (C) in the first violins. The fifth of the chord in the bass weakens its sense of resolution. The texture is thin and the dynamic level is very soft.

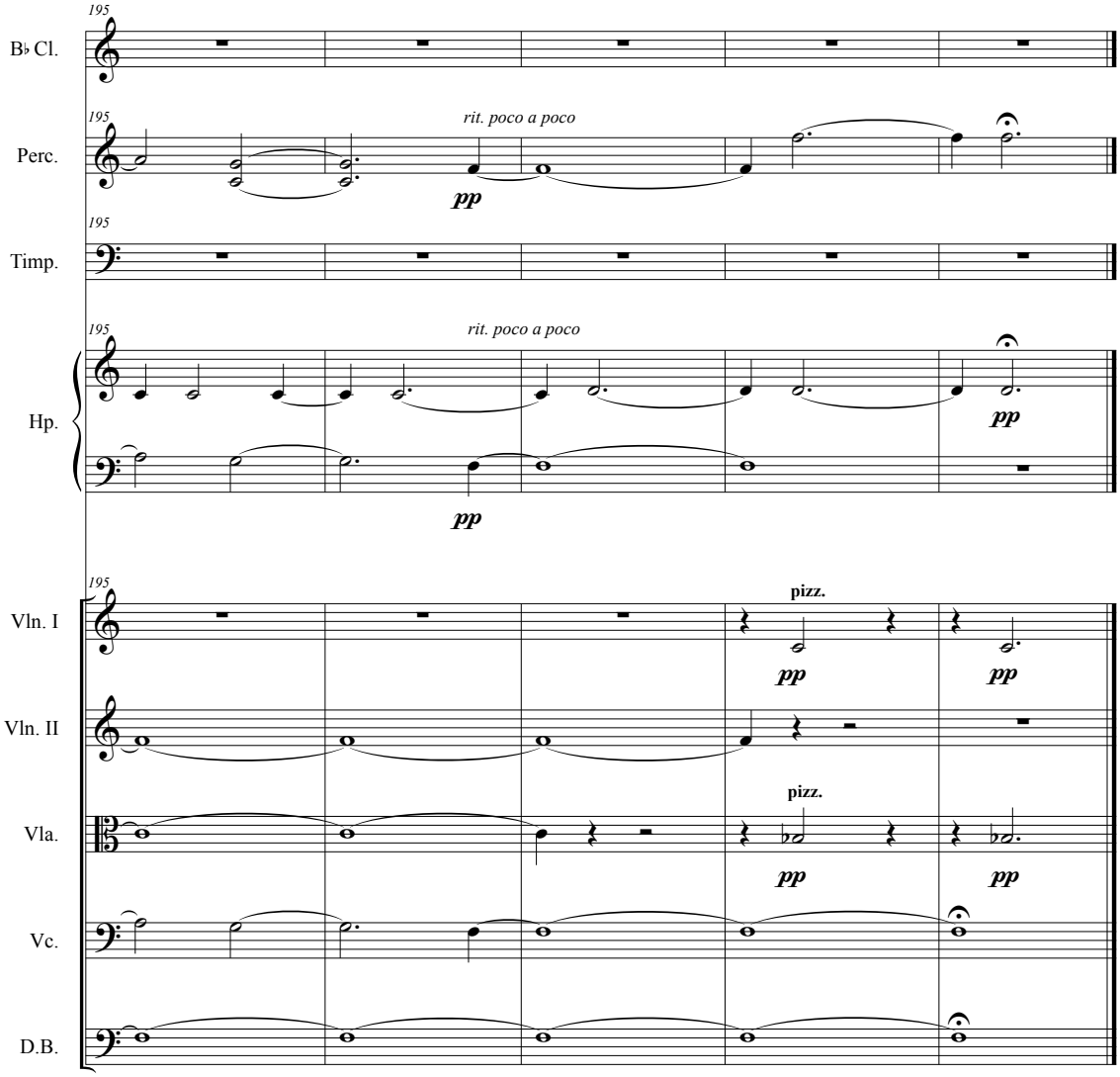
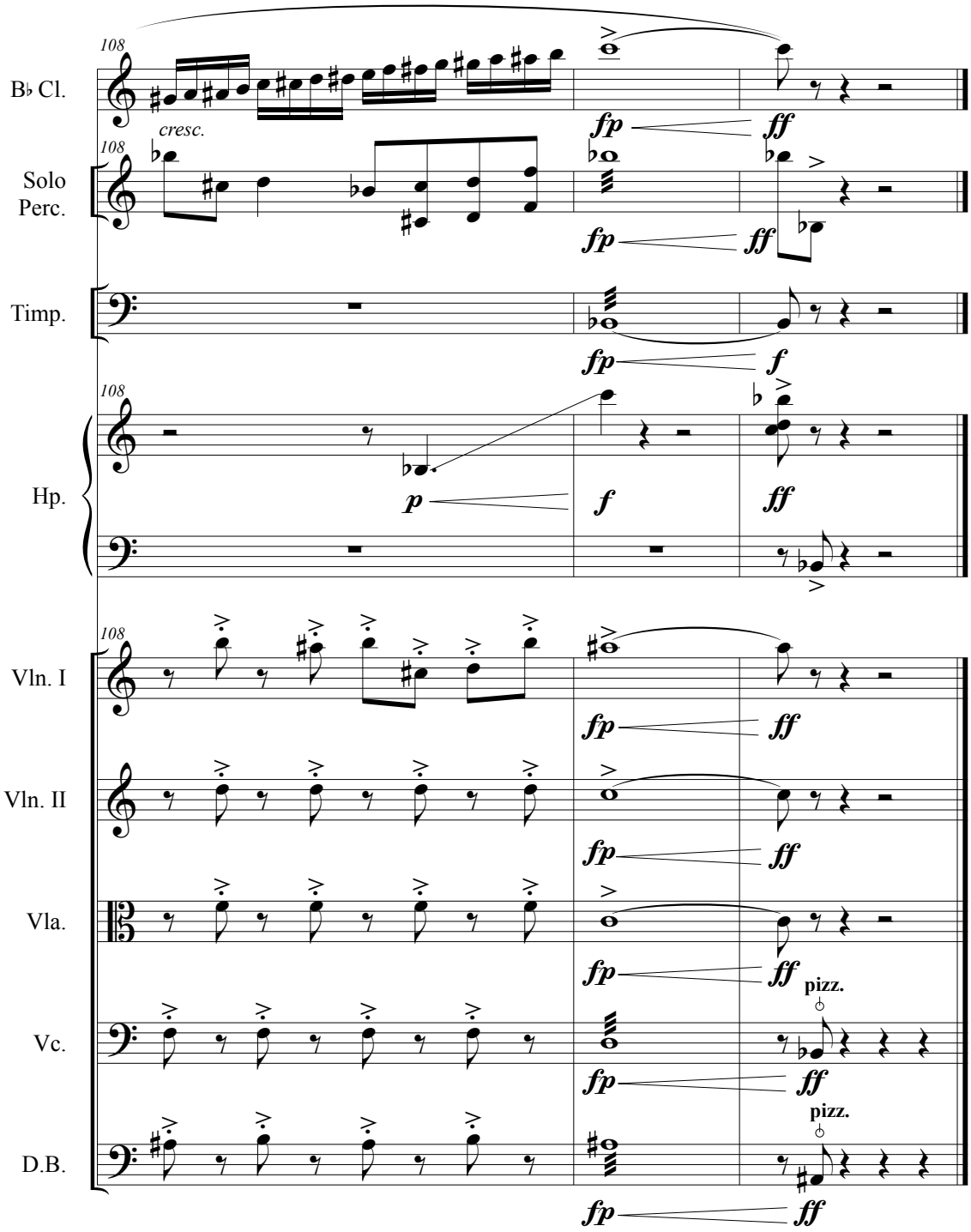


Figure 22: Final chord in "George." B-Flat Major with added second (C). This time, the tonic B-Flat is firmly rooted in the bass to reinforce the sense of finality of both the movement and the concerto as a whole. The texture is thick, heavy, and the piece ends in a forceful manner, *fortissimo*. (A final "Bartók Pizz" in the low strings resonates on the offbeat as a last wink to the Hungarian composer.)



In conclusion, the principal feature of this movement is centered on the mixture of some jazz and some classical elements. Like jazz, the music is driven mainly by its syncopated rhythm, which also appears in the slow section B. Also, the solo wind instrument that is used in this piece is the clarinet, a particularly versatile instrument that occupies a prominent place in both jazz and classical repertoires. The many glissandi in the clarinet (mm. 1-3, 7, 10, 33, 38, 82-83, and 107-08) are also more characteristic of jazz effects than of classical ones. There are glissandi in the timpani and xylophone as well, which combined with the fast tempo, articulation, and graces notes throughout give the music a playful quality. However, the piece is tightly structured and does not offer room for improvisation. The presence of the harp and strings is also atypical of jazz. Finally, the lyricism of the middle section B does not fit the characteristics of jazz, in spite of its many syncopations; its lushness and heavy use of the full string section at a relatively slow tempo typify classical music. This section also makes reference to what Gershwin has done in his major orchestral pieces. In both *Rhapsody in Blue* and *An American in Paris*, Gershwin contrasts the overall jazzy feel of the music with several slow and lyrical sections, whether played by the pianist or the full orchestra. Overall, "George" pays homage to Gershwin's jazz-based orchestral works by means of syncopation, lyricism, and humor.

CHAPTER V

Conclusion

In spite of the dissimilarity of their music and techniques, Bartók, Debussy, and Gershwin remain influential figures of the classical repertoire. They also represent the essence of this particular concerto. Each of these composers has had a profound impact on my craft for specific, yet different reasons.

Bartók was not the only composer influenced by mathematical ratios in the construction of his music; yet, he was one of the few, in my opinion, to have successfully joined these two disciplines together without sacrificing one over the other. Furthermore, his mixture of modality, tonality and atonality did not undermine the coherency of his works; on the contrary, it helped enhance it. There is always something new to grasp at each different hearing, whether in the orchestration, harmonic and melodic content, or the structure of his pieces.

Debussy on the other hand, taught me that no one should underestimate the beautiful and sensual component of music and art. His lush melodic writing, the careful, delicate and subtle treatment of his orchestration, and his unique harmonic language are one of the most valuable lessons a young composer could learn.

Finally, Gershwin is a great reminder that rhythm is the primary driving force of music, whether in a fast and ragtime-like song or in the slow section of an orchestral piece. Moreover, his works appealed to both popular and refined audiences alike, a component that is a significant one for young composers to understand and respect.

It is with these observations in mind that the composition of *Music for Strings, Percussion and Clarinet* took place, joining together three very important aspects of music: the intellect, the beautiful, and the enjoyable. It is thanks to these components that this piece celebrates the diversity of these three composers of Hungary, France, and the United States.

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APPENDIX 1

INSTRUMENTATION

Clarinet

Solo Percussion (Vibraphone, Crotales, Xylophones, Chimes, Glockenspiel)
Percussion (Timpani, Vibraphone)

Harp

Strings

APPENDIX 2

THE COMPLETE SCORE

OF

MUSIC FOR STRINGS, PERCUSSION AND CLARINET

By

ANNE-VALÉRIE BRITTAN-LEIBUNDGUT